Firmware and Boot Code Release Notes for Emulex OneConnect OCe10100 and OCe11100 Series Adapters

Versions: Firmware Version 10.0.803.19

Date: February 2014

Purpose and Contact Information

These release notes describe resolved known issues, and current known issues associated with this release of the firmware and boot code for Emulex OneConnect™ OCe10100 and OCe11100 series adapters.

For the latest product documentation, go to www.Emulex.com. If you have questions or require additional information, contact an authorized Emulex® technical support representative at tech.support@emulex.com, 800-854-7112 (US/Canada toll free), +1 714-885-3402 (US/International), or +44 1189-772929 (Europe, Middle East, and Africa).

Resolved Issues from Firmware Version 4.6.142.10

Firmware Resolved Issues

1. **Added iSCSI support for Internet Protocol version 6 (IPv6).**
2. **Corrected an issue with a system hang occurring due to the RXF management driver getting overloaded with broadcast traffic.**
3. **Corrected an issue with the MAC address disappearing after changing the MAC address and rebooting the system.**
4. **Corrected an issue with the queue resources not getting cleaned up properly.**
5. **Corrected an issue with the displayed speed showing as 10G, but the actual bandwidth available was 100 Mb/s after disabling and re-enabling a UMC channel.**
6. **Corrected an issue when installing an OCe11101-EX/EM or OCe11102-EX/EM UCNA into a system with existing OneConnect adapters that would cause the firmware on the existing OneConnect adapters to fail to load.**

PXESelect Resolved Issues

1. **The Multichannel Mode options for state and type have been combined into a single option.**

PXE NIC UEFI Resolved Issues

1. **The Multichannel Mode options for state and type have been combined into a single option.**

PXE NIC FCode/OpenBoot Resolved Issues

There are no resolved issues for this release.

PXE BootBIOS Resolved Issues

There are no resolved issues for this release.

iSCSISelect Resolved Issues

There are no resolved issues for this release.

iSCSI UEFI Resolved Issues

1. **Corrected an issue with an invalid LUN size displaying in the UEFI iSCSI BIOS utility.**

iSCSI BootBIOS Resolved Issues

There are no resolved issues for this release.

NIC UEFI Resolved Issues

Note: For OCe10100-series UCNAs, the NIC UEFI version is 4.6.144.6.

There are no resolved issues for this release.

FCoE Universal Boot Resolved Issues

1. **The Enhanced Disk Drive setting now defaults to EDD3.0 (the previous default was EDD2.1).**

   Note: The *Boot Version 10.0 for NIC, iSCSI, and FCoE Protocols User Manual* still indicates a default setting of EDD2.1. It should be EDD3.0.

FCoE x86 BootBIOS Resolved Issues

1. **The Enhanced Disk Drive setting now defaults to EDD3.0 (the previous default was EDD2.1).**

   Note: The *Boot Version 10.0 for NIC, iSCSI, and FCoE Protocols User Manual* still indicates a default setting of EDD2.1. It should be EDD3.0.

FCoE FCode/OpenBoot Resolved Issues

There are no resolved issues for this release.

FCoE UEFIBoot Resolved Issues

There are no resolved issues for this release.

Known Issues

Firmware Known Issues

1. **With the default mode for Advanced Mode now set to enabled, older inbox drivers accompanying certain operating systems and older out-of-box drivers may experience issues.**
   - On RHEL 5.6 systems using the 2.102.518r inbox driver, installing the new firmware may cause the system to stop responding when powering down the server.
   - On Citrix XenServer 5.6 systems using the 2.104.277.1 inbox driver, MAC addresses may be incorrect after installing the new firmware.
   - On Windows Server 2008 R2 and Windows Server 2008 systems using the 2.102.517.0 out-of-box driver, NIC cannot be initialized and a warning message is presented after installing the new firmware.
   - On the following operating systems using the indicated drivers, NIC cannot be initialized after installing the new firmware:
     - RHEL 6.0 and 2.102.426r inbox driver
     - RHEL 6.1 and 2.103.298r inbox driver
     - SLES 10 SP4 and 2.102.453s inbox driver
     - SLES 11 SP1 and 2.102.147s inbox driver
     - SLES 11 SP2 and 4.1.277u inbox driver
     - XenServer 6 and 6.02 and 2.104.277.1 inbox driver
     - XenServer 6.1 Tampa RC1 and 4.1.450.7 inbox driver
     - Solaris 11 and 1.20e inbox driver

   Workaround

   Either disable Advanced Mode after installing the new firmware, or install the latest out-of-box driver.

2. **LRO may not function properly on the second port of a dual-port adapter, which causes traffic not to run on the second port.**

   Workaround

   None.

3. **PHY loopback test may fail after logging into and out of a target with header digest and performing a MAC loopback test.**

   Workaround

   Run the PHY loopback test individually.

4. **Enabling and disabling TCPConnectionOffloadIPv4 on an Emulex host interface may cause the host interface to become inactive and interrupt traffic.**

   Workaround

   None.

PXESelect Known Issues

1. **The PXE Boot Support attribute on the PXESelect utility's Port Configuration page does not match the Option ROM attribute on the UEFI NIC Configuration page.**

   Workaround

   None.

2. **Attempting to enter the PXESelect utility on an AMD-based system may result in an "Illegal Opcode" message and no access to the PXESelect utility.**

   Workaround

   None.

PXE BootBIOS Known Issues

1. **When multichannel is enabled, the logical link may go down when the minimum bandwidth is set to 0 and the maximum bandwidth is set to 100 for a physical function.**

   Workaround

   None.

iSCSISelect Known Issues

1. **If Edit Target fails when enabling the Header/Data Digest, the resulting screen indicates the Header/Data Digest as "Disabled" and you cannot fix the session.**

   Workaround

   You must remove and re-add the session.

2. **When editing Header/Data Digest or CHAP, the Edit Target screen re-logs in as IPv4.**

   Workaround

   None.

3. **The iSCSISelect utility currently accepts and saves invalid iSCSI IQN names.**

   Workaround

   None.

iSCSI UEFI Known Issues

1. **UEFI iSCSI BIOS fails to discover targets when more than 64 targets are added per port.**

   Workaround

   None.

NIC UEFI Known Issues

1. **Due to memory size restrictions in the OCe10100-series UCNAs, the NIC UEFI version for this release is 4.6.144.6.**

   Workaround

   None.

FCoE UEFIBoot Known Issues

1. **Non-zero LUNs that are available may not display in the "Boot Device Order" list and cannot be configured in FCoE UEFIBoot for OCe11100-series adapters.**

   Workaround

   None.

2. **If the fabric login is unsuccessful after three retries, the driver will exit with an unsuccessful login message.**

   Workaround

   None.

Technical Tips

1. Under SLES 11, the bond 5 and 6 modes must be configured properly to work with the firmware. When configuring the bond mode, change the default setting to include "updelay=100". For example, the correct setting for bond 6 is BONDING_MODULE_OPTS='mode=6 miimon=100 updelay=100'.

2. For Cisco switches, the access mode must be set in trunk mode, and native VLAN cannot be FCoE VLAN, that is, the FCoE VLAN must be in the allowed list.

   For example, if VLAN 2 is the FCoE VLAN and VLAN 1 is the Ethernet VLAN, you would enter the following:

   - `Switchport mode trunk`
   - `Switchport trunk native vlan 1`
   - `Switchport trunk allowed vlan 1-2`

3. For Brocade switches, trunk mode must be set in converged mode.

   For example, if VLAN 2 is the FCoE VLAN, you would enter the following:

   - `Switchport mode converged`
   - `Switchport converged allowed vlan add 2`

4. For best performance, disable the Spanning Tree Protocol (STP) on all networked switches if you are using the following:
   - Adapter fault tolerance (AFT)
   - Automatic load balancing (ALB)
   - Static link aggregation teaming

5. The OCe11102 UCNA may not establish a link with an Extreme Networks Summit x650 switch when a 5-meter Cisco DAC cable is used. Emulex recommends using a different

vendor cable (if a 5m cable length is desired) or using a different length Cisco DAC cable.

6. BIOS target scan may not report any assigned targets because Emulex adapters only report direct access block devices.

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Note: References to OCe11100 series products also apply to OCe11100R series products.